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**DEMONSTRATION EXAM TO ASSESS THE FORMATION OF
LABOR FUNCTIONS OF FUTURE TEACHERS**

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Abstract

The purpose of the article is to analyze the main theoretical approaches to the problem of independent assessment of the quality of education in the context of the introduction of new educational standards (FSES 3++) and to present an approach to the implementation of an external independent assessment of the quality of education and the formation of the labor functions of future teachers. The purpose of the state final certification is to determine the compliance of the results of learning educational programs of higher professional education with the requirements of the federal state educational standard of higher professional education. The article presents an analysis of the results of testing an innovative form of assessing the quality of bachelors of the faculty of primary grades of a pedagogical university. The technology and content of the Demonstration exam are considered. Significant advantages and educational disadvantages are indicated, prospects for the further development of this form of student certification are shown.

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1. Introduction

Currently, the issue of independent assessment of the quality of training of students at pedagogical universities in the context of the introduction of new educational standards (FSES 3++) is relevant. One of the solutions to this issue can be an assessment of the quality of training of students using innovative forms, in particular, participation in the Demonstration exam, which allows, in a specially simulated environment, to assess the formation of graduates' labor functions from the standpoint of the requirements of educational and professional standards.

2. Problem Statement

Based on the analysis of normative documents in the field of higher education, scientific research of domestic and foreign scientists and describe and analyze the experience of conducting an independent assessment of the formation of labor functions of future teachers (using the example of primary school graduates of V.P. Astafiev KSPU).

3. Research Questions

The future professional activity of teachers includes the following types: pedagogical, research and cultural and educational. The main labor functions are: general pedagogical function, training, educational activity, developmental activity. These activities are interdependent and interrelated. Their ratio depends on the request of a specific educational organization, with its strategic and tactical tasks. The performance of a specialist ultimately depends on the level of his professional competence. In the Law of the Russian Federation "On Education", competence is considered as "the readiness to act on the basis of existing knowledge, abilities and skills in solving problems common to many types of activity".

The concept of "competence" is disclosed in the works of: Adolf and Savchuk (2013), Bydanova (2008), Dorofeev (2005), Ershova and Mullina (2015) and others as the degree of compliance with the requirements of the profession - is defined as a combination of mental qualities that allows one to act independently and responsibly (effective competence), as a person's possession of the capacity and ability to perform certain labor functions.

Defining competence as "... the combination of a student's personal qualities (value-sense orientations, knowledge, abilities, skills, capacities), conditioned by the experience of his activity in a certain socially and personally significant sphere" (Khutorskoy, 2016, 2017, p. 100) notes that competence for a student is an image of his future, a reference point for mastering. But during the period of study, certain components of these competencies are formed, and in order not only to prepare for the future, but also to live in the present, he masters these competencies from an educational point of view.

A distinctive feature of modern higher professional education, as noted by Efremova (2012), Naseikina and Zharikova (2012), Gafurova and Bugaeva (2009) - personality-oriented training aimed at the formation of competitive, highly professional specialists, characterized by responsibility, creative initiative, the ability to take constructive and competence-based actions in professional activity. Focus on this result

requires a special system for assessing the general and professional competencies of students (Gruzdeva et al., 2015; Lazarenko & Volokhov, 2017; Leibovich, et al., 2013; Malanicheva, 2019).

The peculiarity of competence as a result of education is an integrated result of learning; it manifests itself and exists in the form of activity, and not in the information about it; it is associated with a significant number of objects of action. It is built up together with other competencies, forming professional competence; competence, as an action. It does not manifest itself automatically, but consciously and repeatedly, forming professional experience. Competence approach, as noted by scientists Prokofieva, et al. (2015), is more aimed at achieving the quality of training that meets the economic and social needs of society, creating a balance between the demand in the labor market, the interests and professional realization of the individual (Kolegova, 2014; Selezneva, 2009; Stolbova & Danilov, 2012; Tovysheva, 2010; Tyurikov, et al., 2018).

For our research, the position of Khutorskoy (2016) is critical. He says that when assessing the level of competence, that is, when assessing the competence of a student, the following assessment systems are used. 1. A system for evaluating a product created by a student when performing educational tasks (practical work, laboratory work, projects, term papers, diploma thesis, etc.). Based on the elements of the product, it is concluded that the student has relevant knowledge, abilities, skills, capacities, analysis tools, experience. 2. The system for assessing student performance. In this case, it is the student's activity that is assessed - its quality, efficiency, completeness, and effectiveness. The student's activity here is the pedagogical product that is diagnosed and evaluated. 3. The system of student self-assessment of their competencies. Self-assessment reflects the student's subjective ideas about their competencies.

It is customary to distinguish three main components in the structure of competence: cognitive, which determines, first of all, the bachelor's knowledge base; integrative-activity, which involves the use of acquired knowledge and skills both in the field of direct application and in the metasubject field; and personal, which is common and, in a sense, a generatrix for all components. This form of assessment of the formation of competencies as a demonstration exam allows you to see the level of each of the three components in the assessment process. To carry out such an assessment, the demonstration exam is also suitable because the main requirement is the proximity of the situation to the professional field in which specific professional tasks are solved, in the conditions of external examination, which is actually feasible in the conditions of the demonstration exam (Faktorovich, 2014; Khar'kov et al., 2017).

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The experience of many countries shows that an activity-based approach to assessing the formation of competence is necessary. For example, in Sweden it is customary to distinguish between such concepts

as teaching competence and pedagogical competence. Teaching competence - most commonly understood as teaching skills (knowledge of methods, techniques, technologies) - is directly related to the organization of the process of transferring knowledge and experience and is most visible in the interaction “teacher - students, or students - students). Pedagogical competence, of which teaching is a part, is associated with solving any pedagogical problems with all participants of the educational process. It is customary to assess, among other things, the teaching and pedagogical activities by the analysis of experience.

Such experience is also presented in the system of training bachelors in the USA and Great Britain, and in some European countries, where through the implementation of actions in the “behavioral” aspect or through “functional skills” (in either case, the demonstration of elements of professional activity is understood), it is possible to assess all aspects of competence (Antropova, 2019; Booth & Ainscow, 2002; Social Security in Japan..., 2014).

Analyzing the problem of teachers' competencies in foreign studies, the experience of the following countries was considered: Australia, South Korea, Japan, Germany and the USA. In these countries, the assessment of competencies is the mainly part of the professional exam for the position of a teacher, which is structured as follows: the first exam (theoretical): test, presentation of your own portfolio, the second exam, provided the first is successfully passed: demonstration of the lesson (or fragment) and its assessment by experts: employees of the center, teachers - colleagues, school administration.

Thus, the assessment of the formation of a competence is based on its structure, that is, all components are assessed (knowledge, activity, reflexive-evaluative skills). Since teaching is the solution of various educational problems, it is this ability that is assessed through the modeling of professional activity. In many countries, experts working in this area are involved in modeling the assessment process and in implementation.

4. Purpose of the Study

To present an approach to the implementation of an external independent assessment of the quality of education and the formation of the labour functions of future teachers and describe the content and technological aspects of the Demonstration exam.

5. Research Methods

In this article, we will present an approach to the implementation of an independent assessment of the quality of education and the formation of labour functions of graduates of the primary school faculty of V.P. Astafiev KSPU - future teachers as part of their participation in the Demonstration exam.

The demo exam was implemented in three stages.

1. Preparatory stage (development of a technical description, preparation of control and measuring materials, preparation of the site, determination of the composition of the expert group and the group of student-participants).
2. The main stage (carrying out all procedures of the demonstration exam).

3. Reflexive (joint final reflection of a group of experts and students and an analytical seminar of the expert group with the university teachers).

At the first stage, the working group developed and agreed with representatives of the professional community a technical description of the demonstration exam, consisting of a description of the professional actions and characteristics of students assessed during the demonstration exam, criteria for assessed actions, content of tasks, scorecards and a list of materials and equipment. The list of actions and characteristics of students, checked within the framework of the developed set of assessment documentation, fully complies with the Federal State Standard of Higher Education in terms of the level of bachelor's degree, the Professional Standard "Teacher (pedagogical activity in the field of preschool, primary general, basic general, secondary general education) (educator, teacher)", approved by order of the Ministry of Labor and Social Protection of the Russian Federation dated October 18, 2013 No. 544n.

The following actions and characteristics were selected for evaluation at the demo exam:

- Organization of the workspace and workflow.
- General culture.
- Solving professional and pedagogical problems (general professional level).
- Interaction with parents and employees of the educational institution.
- Methodological support of the educational process.
- Self-development and self-education.

For each action from the list, competencies were determined in accordance with the Federal State Educational Standard of Higher Education. Labor functions, and actions - in accordance with the professional standard "Teacher". Also, for each action or characteristic, criteria were determined, at least three for each action.

For the demonstration exam procedure, three tasks were developed in the course of which the participants demonstrate the actions and characteristics assessed.

Task 1. Preparing and conducting a fragment of a lesson (the stage of discovering new knowledge) in primary grades in one of the academic subjects. The topic is selected from a set of control and measuring materials at random on the day of the exam. The volunteers (6 people) are primary school students. Preparation time 1 hour 30 minutes.

Task 2. Development and implementation of extracurricular activities using interactive equipment for primary school students. The direction of the lesson is chosen from the five main directions of personality development according to the standards of the corresponding federal state educational standards at random on the day of the exam. The volunteers (6 people) are primary school students. Preparation time 1 hour 30 minutes.

Task 3. Solving a situational pedagogical problem, preparing and conducting interaction on the proposed solution with the parents of primary school students. The situation proposed for discussion with the parents is selected from a set of control and measuring materials at random on the day of the exam. The volunteers (6 people) are university students. Preparation time 1 hour.

The total score for the demo exam for all assessment criteria is 100.

The maximum scores are distributed as follows:

- Workspace organization and workflow - 9 points;
- General culture - 9 points;
- General professional development - 54 points;
- Interaction with parents and employees of the educational institution - 10 points;
- Methodological support of the educational process - 10 points;
- Self-development and self-education - 8 points.

For the work of the expert commission, checklists were developed in accordance with the selected criteria.

The demonstration exam was held in a specially equipped area. For this, a large classroom was chosen, which was made into two working areas: a preparation area and a presentation area. In the preparation area, individual workplaces were located for training participants, each of which was equipped with a personal computer, headphones, and office supplies. There were designers in the common working area. In the demonstration area there were work tables of the expert commission, desks and chairs for volunteers, an interactive whiteboard, a felt-tip board, a flipchart, and a timer.

Students who took part in the demonstration exam at this stage were familiarized with the content of the assignments, the procedure for conducting the exam, and basic materials.

Control and measuring materials were developed also at the preparatory stage. To complete task 1, fragments of the calendar-thematic planning that correspond to the dates of the exam were requested. From the list of these topics, the topic of the lesson for the first task was randomly selected. To complete task 3, 30 pedagogical tasks were selected.

By agreement with the educational organizations of the city, groups of children and the leaders of these groups were identified. They accompanied the primary school students to the exam. Student volunteers were also identified.

The main stage took place within two days. On the first day, they demonstrated the performance of tasks 1 and 3, on the second day - task 2. Each day began with a short briefing, where experts and participants greeted each other. Working places, the order of the participants' presentations and the necessary control and measurement materials to complete the task were determined by lot. The participants took their places and prepared for the presentation of the tasks. Members of the expert commission could observe the course of preparation. For the demonstration, 6 volunteers were invited to the classroom- 3rd or 4th grade students. During the demonstration of tasks, students and university teachers were invited to the classroom.

The last stage consisted of a final reflection, which was carried out immediately after the completion of the last task and an analytical seminar for representatives of the expert group and university teachers. The main task of the final reflection was to organize a field for a professional exchange of opinions among experts and participants. The format and content of the performances were not specified by the organizers. This part of the exam allowed realizing "live" communication among experts and participants. The

objective of the analytical workshop was to collect opinions, visions and comments and outline strategic lines for the further development of the assessment of the formation of competencies within this format.

6. Findings

For two days, 10 graduate students were performing exam tasks in conditions that were as close as possible to the real professional activity of a primary school teacher. The participants developed and conducted fragments of the lesson and extra-curricular activities that met the current requirements, demonstrated their knowledge of modern technical teaching aids, organized interaction with both real primary schoolchildren and prospective parents. The assignments were assessed by the expert commission, which included representatives of the city's educational institutions.

As a result, all the participants in the Demonstration Exam confirmed their readiness to perform labor activities, laid down in the professional standard of a teacher.

Thus, the issue of an independent assessment of the quality of training of university students in the context of the introduction of new educational standards (FSES 3++) is relevant, an analysis of the main trends in the development of the modern system of higher pedagogical education is carried out, the relevance and practical significance of the work is shown. The description of the approach to the implementation of an independent assessment of the quality of education and the formation of the labor functions of future teachers (on the example of students of the KSPU named after V.P. Astafiev).

7. Conclusion

Due to the relevance and practical importance of the problem, the need to identify and scientifically substantiate approaches to an independent assessment of the quality of training of students at pedagogical universities is indicated.

The author's contribution is the implementation of the theoretical analysis of scientific literature, the processing and analysis of the results of the Demonstration exam for bachelors, the designation of the prospects for the solution of this problem.

References

- Adolf, V. A., & Savchuk, A. N. (2013). *Forecasting the formation of professional competence of a university graduate*. Krasnoyarsk.
- Antropova, O. A. (2019). The main trends in the development of education in the countries of the European Union: Common values, approaches and requirements for the implementation of the educational process. *Pedagogy and psychology of education, 1*, 9-15.
- Booth, T., & Ainscow, M. (2002). *Index for inclusion: Developing learning and participation in schools*. Center for Studies on Inclusive Education.
- Bydanova, E. N. (2008). Analysis of the competencies of graduates of Russian universities, *SOTSIS, 5*, 140-142.
- Dorofeev, A. (2005). Professional competence as an indicator of the quality of education, *Higher education in Russia, 4*, 30-33.
- Efremova, N. F. (2012). *Formation and assessment of competencies in education*. Academy of Natural Science Publishing House: Penza.

- Ershova, O. V., & Mullina, E. R. (2015). Formation of professional competencies of students, ensuring competitiveness in the labor market, *Modern high technologies*, 9, 133-136.
- Faktorovich, A. A. (2014). *Methodical recommendations for the development of professional educational programs, taking into account the requirements of professional standards*. Pero.
- Gafurova, N. V., & Bugaeva, T. P. (2009). Educational process in the university as a system, *Higher education in Russia*, 6, 102-103.
- Gruzdeva, O. V., Kovalev, A. S., Domanetskaya, L. V., Verbianova, O. M., & Dubovik, E. Yu. (2015). New in the design of the content of educational training for bachelors and masters. In *Management of the educational process in a modern university: higher education for the development of the region: mater. VII All-Russia. scientific-practical conf. with int. participation in the framework of the IV International scientific and educational forum "Man, family and society: history and development prospects"*, 33-48.
- Khar'kov, E. I., Filimonova, L. A., Balashova, N. A., Tsibulskaya, N. Yu., Borisenko, N. A., & Yaskovich, R. A. (2017). Professional competence of university students in the light of the concept of sustainable development, *International student scientific bulletin*, 5, 17304.
- Khutorskoy, A. V. (2016). Competence approach and methodology of didactics. *Bulletin of the Institute of Human Education*, 1, 100.
- Khutorskoy, A. V. (2017). *Didactics*. Peter.
- Kolegova, E. D. (2014). On planning learning outcomes in the framework of competence-based basic educational programs. *Scientific dialogue*, 2(26), 91-101.
- Lazarenko, I. R., & Volokhov, S. P. (2017). Professional and educational support of targeted teaching of teachers taking into account the needs of the education system of the Altai Territory. *Bulletin of the Minin University*, 3(20), 3-12.
- Leibovich, A. N., Blinov, V. I., Batrova, O. F., & Yesenina, E. Yu. (2013). Professional standards as tools for connecting the activity of the vocational education system with the requirements of the labor market. *Analytical reviews on the main directions of development of higher education*, 7, 72.
- Malanicheva, A. V. (2019). State final certification in the system of continuous pedagogical education. *World of Science, Culture, Education*, 2, 217-219.
- Naseikina, L. F., & Zharikova, I. Yu. (2012). Formation of professional competencies of university students in training according to the standards of the third generation and methods of their assessment. *Innovations in science*, 9, 79-85.
- Prokofieva, E. N., Levina, E. Yu., & Zagrebina, E. I. (2015). Diagnostics of the formation of students' competencies in the university. *Fundamental research*, 2-4, 797-801.
- Selezneva, N. A. (2009). The problem of implementation of the competence-based approach to the results of education. *Higher education in Russia*, 8, 3-9.
- Social Security in Japan Chapter 8 Policy for people with disabilities. (2014). Tokyo: National Institute of Population and Social Security Research. http://www.ipss.go.jp/s-info/e/ssj2014/pdf/08_SJ2014.pdf
- Stolbova, I. D., & Danilov, A. N. (2012). Toolkit for assessing educational outcomes with a competency-based approach. *Standards and monitoring of education*, 4, 24-30.
- Tovysheva, I. Z. (2010). External evaluation of quality of educational services of higher education institutions as a basis for an integrated all-Russian system of education quality evaluation. *Kreativnaya ekonomika*, 4(5), 87-90.
- Tyurikov, A. G., Borovinskikh, O. S., Golubeva, K. A., & Kunizheva, D. A. (2018). Formation of the system of internal and external independent assessment of the quality of educational services at the university. *Vlast*, 9, 147-152. <https://cyberleninka.ru/article/n/formirovanie-sistemy-vnutrenney-i-vneshney-nezavisimoy-otsenki-kachestva-obrazovatelnyh-uslug-v-vuze/viewer>